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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-21. (cancelled)

22. (previously presented) A method for controlling engine operation in a vehicle, the engine coupled to an emission control device including at least platinum particles for converting emissions from the engine, the method comprising:

detecting a deceleration condition of the vehicle;

in response to said deceleration condition, adjusting fuel injection into the engine to maintain an exhaust mixture air-fuel ratio entering the emission control device to be lean, but less lean than a limit air-fuel ratio value, said limit air-fuel ratio value being a lean air-fuel ratio limit determined as a function of exhaust temperature, wherein said limit air-fuel ratio decreases as temperature increases, at least in one operating region, wherein said exhaust temperature includes temperature of the emission control device, wherein a second emission control device is coupled upstream of said emission control device wherein said limit air-fuel ratio for said downstream emission control device is based on an amount of oxygen storage of said upstream emission control device.

23. (new) The method recited in Claim 22 further comprising, adjusting an exhaust valve in an exhaust system of the engine to increase exhaust gas cooling.

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24. (new) The method recited in Claim 22 wherein said oxygen storage amount of the upstream emission control device is based on aging information of the upstream emission control device.

25. (new) The method recited in Claim 22 wherein the engine operates lean for a duration that corresponds to filling the oxygen storage capacity of the upstream emission control device when the exhaust temperature is above a threshold temperature.

26. (new) The method recited in Claim 22 wherein the engine operates at stoichiometry for a duration that corresponds to the catalyst temperature falling below a threshold temperature when the upstream emission control device oxygen storage fills to capacity.

27. (new) A method for controlling engine operation in a vehicle, the engine coupled to a first emission control device including at least platinum particles for converting emissions from the engine, and a second emission control device being coupled upstream of said emission control device, the method comprising:

detecting a deceleration condition of the vehicle; and

in response to said deceleration condition, adjusting fuel injection into the engine to maintain an exhaust mixture air-fuel ratio entering the first emission control device to be lean, but less lean than a limit air-fuel ratio value that decreases as temperature increases, at least in one operating region, said limit air-fuel ratio value being a lean air-fuel ratio limit determined as a function of exhaust temperature including the temperature of the first emission control device, said limit air-fuel ratio for the first emission control device being based on an amount of oxygen

storage of the second emission control device, said lean air-fuel ratio being maintained for a duration that corresponds to filling the oxygen storage capacity of the second emission control device when the exhaust temperature is above a threshold temperature.

28. (new) The method recited in Claim 27 further comprising, adjusting an exhaust valve in an exhaust system of the engine to increase exhaust gas cooling.

29. (new) The method recited in Claim 27 wherein said oxygen storage capacity of the first emission control device is based on aging information of the emission control device.